



DPHL Chemical Terrorism Update 15 November 2007

DPHL CT Procedures

Training/Validation/Proficiency
Referral lab status

Methods, Training, & Exercises

Current CT Testing

■ **LRN-C Qualified Level Two Laboratory**

- Heavy & Trace metals in Urine (ICP/MS)
 - Nutritional & toxicological interest
 - Be, Co, Mo, Cd, Sb, Cs,
 - Ba, W, Pt, Tl, Pb, **U**
 - As, Se (DRC-ICP/MS)
- Blood Metals
 - Pb, Cd, Hg
 - Blood Pb screening in children
- Cyanide in Whole Blood (GC/MS)

Upcoming CT Testing: InOrganic

- Arsenic & Selenium SPECIATION in Urine by DRC-ICP/MS
 - Expandable: Matrices, Metals, Speciation
 - Speciation equipment at DPHL
 - Utilizes HPLC front end for chromatographic separation
 - CDC Method Training delayed 2Q08
 - Future: Vanadium, Chromium, & Thallium by DRC-ICP/MS
 - Gallium - integrated circuits & microprocessors

Upcoming CT Testing: Organic

- Nerve Agent Metabolites in Urine by LC/MS/MS
 - Sarin, Soman, Cyclohexylsarin, VX, Tabun
 - Training 27-29 November 2007



- Validation and proficiency test anticipated February 2008
- Volatile Organic Compounds in Blood by GC/MS:
 - Initial training complete
 - Water pipes delayed validation – aim is March 2008

Future CT Testing : LC/MS/MS

- Ricin (Ricinine biomarker) in urine
- Pesticides and HaloAcetic Acids
- Nitrogen Mustards in urine
- Adamsite (vomiting agent)
- Riot/Tearing agents
- Lewisite Metabolites
- FDA Food methods
- EPA Unknown chemical screens
- BIOMONITORING
- ?????

Collection, Packaging, & Shipping Update

Carriers...or Who Will Take This?

- USPS no longer accepts Class 6.2 Category A materials regardless of volume or mass
- DHL and FedEx DO accept Class 6.2 Category A materials (under standard volume/mass limits)
- UPS does NOT accept Class 6.2 Category A materials
- UPS DOES accept Class 6.2 Category B materials
- To learn more, come to one of the Collection, Shipping, Packaging and Documentation Courses!

Forms...or Paperwork, Paperwork, Paperwork

- All shipments require an itemized list of contents between the secondary and outer packages
 - Mass/Volume, number of primary containers, a brief description
- Technical Name is not required on the exterior of the box



- Technical Name is required on the Shipper's Declaration of Dangerous Goods
- Dry Ice below 200 kg:
 - With a Category B material does NOT require a Shipper's Declaration of Dangerous Goods
 - With a Category A material DOES require a Shipper's Declaration of Dangerous Goods

CT Clinical Samples

- Collection follow "Chemical Terrorism Event Specimen Collection"
 - Specimens must have two layers of evidentiary seal
 - May be individually sealed with evidence tape
 - Must be initialed, time, and dated
 - Freeze urine samples
 - Chill (do not freeze) blood samples
- Shipping & Packaging:
 - "Chemical Terrorism Event Shipping Instructions – Blood"
 - "Chemical Terrorism Event Shipping Instructions – Urine"

DPHL Specimen Paperwork

- Paperwork to accompany samples:
 - DPHL Chain of Custody
 - 1 per patient / environmental specimen category
- DPHL Request for Preparedness Testing must be completed PRIOR to any Testing
 - Include Field Screening report
 - ANY additional information is useful!
 - 1 per batch of samples (clinical vs. environmental)
 - Routine specimens – use LIMS form (or entry!)
- Shipping Manifest:
 - 1 per box shipped
 - Environmental or Clinical Version

Polling Question:

- Do you have capability to quarantine personnel potentially exposed to a BT or CT agent?
 - Your own staff?



- First responder staff?
- DPHL staff?
- How many?
- For how long?
- What materials/agents/syndromes?

Polling Question:

- Do you have a Continuity of Operations Plan in place for service disruptions?
 - Increased sample/patient load?
 - Outbreak?
 - Pandemic?
 - Utility disruption?
 - Civil disruption?
- For how long?
- How many staff affected?

Training

- What are your staff or facility training needs?
- ODP Courses: Excellent, Free Program, for more information:
 - <http://www.ojp.usdoj.gov>
 - <http://www.state.de.us/dema/default.shtml>
 - Call Dwayne Day at DEMA: (302) 659-2214
 - <http://fema.gov>